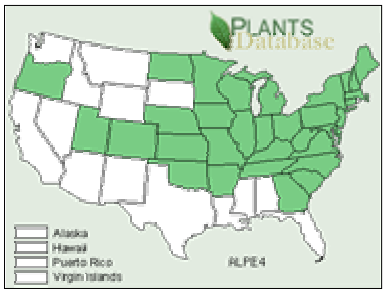
Garlic Mustard *Alliaria petiolata* [Bieb] Cavara & Grande

Native Origin: Europe

Description: Garlic mustard is a cool season biennial herb in the mustard family (Brassicaceae) with stalked, triangular to heart-shaped, coarsely toothed leaves that give off an odor of garlic when crushed. First-year plants appear as a rosette of green leaves close to the ground. Rosettes remain green through the winter and develop into mature flowering plants the following spring. Flowering plants of garlic mustard reach from 2 to 3-1/2 feet in height and produce buttonlike clusters of small white flowers, each with four petals in the shape of a cross. Beginning in May (in the mid-Atlantic Coast Plain region), seeds are produced in erect, slender pods and become shiny black when mature. By late June, when most garlic mustard plants have died, they can be recognized only by the erect stalks of dry, pale brown seedpods that remain, and may hold viable seed, through the summer.

Habitat: Garlic mustard frequently occurs in moist, shaded soil of river floodplains, forests, and roadsides, edges of woods and trails edges and forest openings. Disturbed areas are most susceptible to rapid invasion and dominance. Though invasive under a wide range of light and soil conditions, garlic mustard is associated with calcareous soils and does not tolerate high acidity. Growing season inundation may limit invasion of garlic mustard to some extent.



Distribution: Garlic mustard is located from eastern Canada, south to Virginia and as far west as Kansas and Nebraska. See shaded areas on the distribution map.

Ecological Impacts: Garlic mustard poses a severe threat to native plants and animals in forest communities. Once introduced to an area, garlic mustard out-competes native plants by aggressively monopolizing light, moisture, nutrients, soil and space.

Control and Management:

Mechanical- Hand removal of entire root system of plant is practical for light infestations. For larger infestations cut stems at ground level or within several inches of the ground, to prevent seed production.
Chemical- Herbicide (e.g., Roundup) may be applied for very heavy infestations. Fire can be used but can encourage germination of stored seeds and promote growth of emerging garlic mustard seedlings.
Biocontrol- Five weevils and one flea beetle feed on garlic mustard

References: http://plants.usda.gov, www.nps.gov/plants/alien/fact/alpe1.htm
Biological Control of Invasive Plants in the Eastern United States p. 365-369